# RESEARCH AID

# PLANNING AND FINANCING OF CAPITAL INVESTMENTS IN THE USSR



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# CENTRAL INTELLIGENCE AGENCY

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# PLANNING AND FINANCING OF CAPITAL INVESTMENTS IN THE USSR\*

# I. Terminology.\*\*

# A. Capital Investments and Fixed Capital.

In Soviet terminology the term capital investments (kapital'nye vlozheniya) refers to outlays related to the creation of new fixed capital and to the expansion and reconstruction of existing fixed capital. 1/\*\*\* The term fixed capital (osnovnye fondy), or fixed assets, refers to property which is used over and over again in the production of goods or to assets which wear out gradually over a long period of time. Fixed capital usually includes buildings, machinery and equipment, and installations, and it falls into two classifications: (1) fixed capital used in production and (2) fixed capital not used in production. 2/ Production (or productive) fixed capital includes plants, factories, machinery, equipment, and instruments lasting more than 1 year and costing more than 300 rubles; transmission facilities such as pipelines and powerlines; transportation facilities such as roads and railroad tracks; irrigation projects and other improvements of the land; and working and productive livestock. Nonproduction (or nonproductive) fixed capital includes buildings and equipment of residences, offices, schools, hospitals, and theaters and facilities for consumer service; and all military equipment and installations.

#### B. Fixed Capital Distinguished from Working Capital.

Fixed capital (for example, a machine) retains its natural physical form in the course of the production process and transmits its value to the finished product gradually in the form of amortization allowances by adding a small fraction of the value (original cost) of the machine to the cost of each object produced by it. After a lengthy period of time, fixed capital is replaced in its entirety. Working capital (for example, steel) is used up and physically transformed in the production process, and its entire value (cost) is transmitted to the finished product (a tool).

# C. Comparison of Soviet and US Concepts of Capital Investments and Fixed Capital. 3/

The Soviet concept of capital investments corresponds in general to the US concept of fixed capital investments or fixed capital formation.

<sup>\*</sup> The estimates and conclusions in this research aid represent the best judgment of this Office as of 1 June 1958.

<sup>\*\*</sup> For definitions of additional terms frequently used in Soviet investment planning and financing, see Appendix A.

<sup>\*\*\*</sup> For serially numbered source references, see Appendix B.

There are several differences, the first being the exclusion of capital repairs from Soviet capital investments and its partial inclusion in US investments.\* Repairs were part of Soviet investments during the first two 5-year periods, but they were removed in 1938 and put under separate accounting control because, according to one Soviet writer, 5/the necessary appropriations were not forthcoming and amortization funds were not being used for repairs -- in other words, repairs were not being made. Another distinction between US and Soviet investments is, as stated below, the occasional inclusion of changes in the value of working and productive livestock in the Soviet concept and its exclusion from the US concept. There are other differences, but these are minor in relation to total investments.\*\*

Soviet and US concepts of fixed capital are similar. One of the major differences is that the USSR theoretically includes military end items and working and productive livestock and the US does not. Another difference is that the US includes the value of land and the USSR does not, for the reason that all land in the USSR belongs to the state. In practice, however, military end items have not been included in Soviet data on fixed capital in postwar years, and expenditures on end items have never been considered part of capital investments. Apparently there is no general working rule in the case of livestock. Some assets and investment data include livestock values while others do not. Assets and investment data in the various handbooks which have been published in the last few years exclude livestock.

# II. Planning Capital Investments.

#### A. Annual National Economic Plan.

Capital investments are a basic part of the total annual national economic plan. This plan is divided into 11 sections, as follows 6/: (1) Summary table of basic indexes; (2) industrial production program; (3) agricultural production program; (4) transport and communications work program; (5) capital investments; (6) development and introduction of new technology; (7) labor and training; (8) costs of production and the plan for lowering costs; (9) trade turnover;

<sup>\*</sup> The US does not have a concept of capital repairs. Part of what are considered repairs in the USSR are new investments in the US; most are treated as part of operating costs. Soviet investment data occasionally include capital repairs. 4/

<sup>\*\*</sup> Soviet practice includes certain items in investments but excludes them from assets; other items are included in assets but not in investments. For additional detail, see B, l, e, below.

(10) culture, health, and communal economy; and (11) development of the economies of rayons, republics, oblasts, and krays. All of these sections are independently detailed and together provide the direction and goals for the year's economic activity.

Investment plans are made up for periods other than 1 year -for shorter periods (monthly, quarterly, or semiannually) and for longer
periods (usually 5-, 10-, or 15-year plans). The annual plan, described below, is the basic operating plan for investments, and plans
for shorter and longer periods contain similar indexes.

# B. Annual Plan for Capital Investments.

The annual plan for capital investments is itself made up of six basic elements and their breakdowns, as follows 7/: (1) The total volume of capital investments (broken down by branch and/or ministry, sector, structure, and union republic) and the financing of this program; (2) the goals for bringing new capacity into operation, both in money and in real terms (broken down by sector, branch and/or ministry, productive and nonproductive assets, and selected commodities); (3) abovelimit projects; (4) the amount of housing construction; (5) design, research, and future planning; and (6) the construction industry.

The main tasks of this plan are to provide for the growth of the total economy and of the different sectors of the economy in the desired proportions (1 and 2, below), to assure that key projects are included in the plan (3, below), to raise the living standards of the people (4, below), to provide the necessary designs, blueprints, and other documents for the investment plan and to formulate long-range plans (5, below), and to insure the most efficient use of construction resources (6, below).

# 1. Total Volume of Capital Investments.\*

The total volume of capital investments (obshchiy ob"em kapital'nykh vlozheniy) in the USSR is broken down in rubles by sector of the economy, and each sector is further subdivided into branches and/or ministries.\*\* The total is also categorized by union republics. In addition, it is subdivided by the nature of investment (called "structure") for each branch and/or ministry in both physical units and rubles. By calculating in both physical units and rubles a measure can be made of both the total number of machines to be acquired

<sup>\*</sup> For the financing of the volume of capital investments, see IV, below.

<sup>\*\*</sup> For additional detail, see III, below.

and the total cost of these machines and of both the total area of buildings to be constructed and the total cost of the buildings.

The subdivision of the total volume of capital investments by structure contains the following categories 8/: (a) construction, (b) purchase of machinery and equipment, (c) installation of machinery and equipment, (d) purchase of instruments and supplies, and (e) other. These categories are discussed below.

#### a. Construction.

Construction includes erection, expansion, or reconstruction of buildings of all kinds -- factories, plants, warehouses, stores, and dwellings. Included with the erection or expansion of a building are its heating, wiring, and plumbing facilities; the clearing of the land beforehand or the demolition of any preexisting structures; landscaping; and any irrigation or drainage work necessary. Also included in the category of construction are such activities as the construction of blast furnaces, mines, dams, motor roads, railroad lines, bridges, airfields, and canals and the erection of powerlines.

# b. Machinery and Equipment.

The category of machinery and equipment includes the purchases of the machinery and equipment that must be installed in a building (such as turbines, presses, boring machines, lathes, and the like) and the purchases of equipment going into a building that does not have to be installed. Purchases of movable machinery and equipment that do not go into buildings (such as trucks, locomotives, airplanes, tractors, construction machines, and agricultural equipment) also are included in this category.

#### c. Installation of Machinery and Equipment.

The category of installation of machinery and equipment refers to the assembly and setting in place of machinery and equipment, such as installation of rolling mills and of electrical and steam power machinery.

Construction and installation are generally considered together. Construction-installation work in the past has amounted to an average of about 60 percent of the total volume of capital investments, although of course there are large variations among sectors and among projects. Machinery and equipment on the average have comprised about 30 percent of capital investments, the remaining 10 percent being

for instruments and supplies and other minor expenditures.\* This 60-30 relationship between construction and machinery not only varies among projects but also varies over time. During the beginning stages of a project, most expenditures are for construction, whereas in the finishing stages the proportion of machinery increases in the total investment as machinery and equipment for the plant are purchased and installed. The introduction of new technology is another factor which influences the relationship between construction and machinery. If the main trend in activity is the introduction of new machinery into existing plants and/or if the relative share of movable machinery and equipment in total investments increases, construction will be less than 60 percent and equipment more than 30 percent. This has been the case in the past few years and probably will continue into the future, for the introduction of new technology, modernization, and reequipment of existing facilities have become major investment targets. A factor offsetting the shift to a larger share of machinery in total investments since 1949 has been the more rapid fall in machinery prices than in construction prices. For example, machinery prices fell by about 30 percent between 1950 and 1956, and construction prices fell by less than 10 percent.

# d. Instruments and Inventories.

The category of instruments and inventories includes all instruments which cost more than 300 rubles and last more than 1 year. Also included are those inexpensive and short-lived instruments and supplies which are necessary for the beginning of operation of a new plant, such as hand tools and hardware.

## e. Other.

The category of other includes a miscellaneous group of capital investment expenditures, some of which do not cause an

\* Several of the recently published Soviet handbooks have contained structural breakdowns of investments, annually and by 5-year periods, for the categories construction-installation, machinery and equipment, instruments, and other. These series do not indicate a 60-30-10 relationship over a period of time but rather an average relationship for prewar years of 81-16-3 and for the postwar years up to 1956 a 64-30-6 relationship. The reason for the discrepancy is that the handbooks' series are in 1 July 1955 prices, not prices of the periods in which the investments occurred. And construction costs in 1955 prices are higher in relation to past prices than machinery prices in relation to previous prices. Also, besides removing several items from the category of other, these expenses must have been put in the handbook statistics in current prices. This would help explain why the share of the category of other was so low in prewar years.

increase in fixed assets. Among those expenditures which do cause an increase in fixed assets are geological survey work connected with a specific project such as oil prospecting and outlays for soil improvement and melioration work. Expenditures for the formation of basic herds are theoretically part of capital investments but are established separately in the national economic plan and the budget and may or may not be included in investment and assets data. Among those investment expenditures which are not included in fixed assets are the training of construction workers, the costs involved in closing down unfinished projects which are abandoned, expenditures for the supervision of construction jobs, the costs of moving people from areas which have been selected for construction work, and several others.\*

# 2. Goals for Bringing New Capacity Into Operation.

The goals for bringing new capacity (or new fixed assets) into operation (vvoda v deystviye osnovnykh fondov or moshchnostey) constitute the second element of the annual plan for capital investments. These goals -- for finishing structures and beginning operations -- are set in both physical units and rubles for (a) the total economy, (b) productive and nonproductive assets, (c) sectors, and (d) more than 100 basic kinds of industrial commodities and particular indexes such as those for rail lines, electrification, hospitals, houses, and the like. Also included in this element of the investment plan are the tasks for increasing capacities of existing facilities through such devices as improvement of technological processes, modernization, introduction of new techniques, and reconstruction of existing aggregates.\*\*

\* Until the Fifth Five Year Plan (1951-55), all general geological prospecting and surveying were included in capital investments. Subsequently the long-range and general surveying and exploration carried out by the Ministry of Geology were removed from investment statistics. In addition, project and survey work carried out in planning capital investments has not been included in the investment budget since 1950. Although not included in investments, project research work, general geological prospecting, and expenditures involved in expanding livestock herds (such as expenditures for the purchase of livestock from private owners) are included in fixed assets. 9

\*\* Examples of these goals are the following: (a) For the Fourth Five Plan (1946-50), the total centralized capital investments planned amounted to 250 billion 1945 rubles, 10/ and the goal for bringing new capacity into operation amounted to 234 billion 1945 rubles, of which productive assets represented 200 billion rubles and nonproductive assets 34 billion rubles. It is estimated that the balance of unfinished (nezakonchennyye) investment at the beginning of the Fourth Five Year Plan period was about 35 billion rubles. This would imply that it was planned that the volume of unfinished investment planned to be carried over to the next Five Year Plan period was about 51 billion rubles /footnote continued on p. 77

# 3. Above-Limit Projects. 12/

The total volume of capital investments (see 1, above) in the Soviet economy, for each sector and branch and for each republic, is approximately established according to broad objectives and indexes by the Soviet leadership and the Soviet Council of Ministers. Specific projects in the plan are worked out by ministries (union, unionrepublic, and republic), sovnarkhozes, and local governments. These are reviewed by the union-republic council of ministers and the unionrepublic Gosplan and are then passed on up to the Soviet Gosplan, which combines into a single, total capital investment plan all the plans for the union republics, the union ministries, and the economic regions for presentation to the Soviet Council of Ministers for final approval. Soviet Council of Ministers, in order to insure that large projects which have national economic significance were included in the plan for capital investments and that the necessary financial and material resources were provided, until 1956 individually reviewed and approved all above-limit projects (sverkhlimitnykh). Above-limit projects were defined as projects planned to cost more than a certain amount, ranging from 5 million rubles for administrative investment to 25 million rubles for most heavy industry projects. The specific document submitted for approval was the so-called title list.\* In 1955 the Soviet Council of Ministers authorized individual projects representing about 50 percent of the total annual plan for capital investments. Individual belowlimit projects (nizhelimitnyi) were approved by ministries and by union-republic councils of ministers (if under republic or local subordination).

During 1956 and 1957 the system of authorization changed several times, and further changes probably will occur in the future. Currently the Soviet Council of Ministers reviews and authorizes all above-limit projects of union subordination and all projects of union-republic subordination (including union-republic ministries and sovnark-hozes) with a planned cost of more than 50 million rubles (the latter now being called above-limit). Union-republic councils of ministers authorize projects of union-republic subordination costing less than 50 million rubles (now called below-limit) and all projects of republic

<sup>(250 + 35 - 234 = 51).</sup> This 51 billion rubles would also include investment expenditures which would not cause an increase in capacity.
(b) For the Sixth Five Year Plan (1956-60), new facilities planned to be put into operation provided for the production of 15.8 million tons of steel, 84 million tons of iron ore, 6,500 kilometers of new railroad lines, and 205 million square meters of state housing space. 11/
\* The title list included the following data: dates for beginning and completing the projects, a detailed cost breakdown of the projects, capacity of the structures, and the volume of work to be done each year.

subordination. Small projects for the construction of housing and communal facilities (under 5 million and 3 million rubles, respectively) are approved by local governments. Sovnarkhozes do not approve new projects, but they have the authority to redistribute investment funds among projects of a single branch of industry if they do not change completion schedules. With approval of the Soviet Gosplan, they can redistribute investment funds among different branches of industry or sectors of the economy.

# 4. Housing Construction.

Housing construction represents 25 to 35 percent of construction work in the USSR. 13/ For this reason and because it is the major nonproductive investment, housing is presented as a separate element in the annual plan for capital investments.

The planning of housing construction has changed significantly in the last few years. Beginning in 1958, for instance, local planners rather than central planners will plan to cost the outlays of their housing construction programs. 14/ The most significant change has been the shift of housing in the total construction plan to a higher priority.

# 5. Design, Research, and Future Planning.

A fairly new separate element in the annual plan for capital investments is the work of projecting organizations. These organizations are concerned with the design, working drawings, and cost estimates of construction projects. They are also concerned with projecting and research for future construction programs. The main central projecting organizations for investments are the Committee on Construction Affairs attached to the Soviet Council of Ministers and the republic counterparts of this committee.

# 6. Construction Industry.

Because of the peculiar character of its output, the development of the construction industry is planned as an integral part of the annual plan for capital investments, and its indexes (for output, labor productivity, and cost reduction plans) are reported separately in the plan. A number of goals and indexes are established, such as division of work among the various construction administrations and ministries, plans for labor inputs and efficiency, material-technical supplies, mechanization of operations, and the introduction of new techniques.

# III. Sector Breakdown of Capital Investments.

Soviet investment data are usually reported on the basis of a breakdown by ownership, sector, branch, and/or ministry. For this reason, an understanding of this classification is a necessary tool for investment analysis. (Unfortunately, Soviet writers frequently use investment terms loosely, so that determination of the inclusiveness of the data reported is often difficult.) The breakdown by ownership and sector used in reporting planned Soviet investment data is shown in the following tabulation:

| State Ownership  | Sector                                  | Nonstate Ownership                           |
|--|---|--|
|  | Industry                                |  |
| Heavy industry<br>Light and local industry   | 211111111111111111111111111111111111111 | Producer cooperatives<br>Handicraft industry |
|  | Agriculture                             |  |
| Ministry of Agriculture<br>Ministry of Grain Products<br>Other state agriculture   |   | Kolkhozes<br>Private agriculture             |
|  | Transport and Communications            |  |
| Ministry of Transport<br>Ministry of the Merchant<br>Fleet   |   |  |
| Ministry of Communications Civil aviation, the river fleet, and motor transport  |   | None   |
|  | Internal Trade                          | •  |
| Ministry of Internal Trade (public dining rooms)   |   | Kolkhoz market<br>Consumer cooperatives      |
|  | Other Investments                       |  |
| Municipal housing and utilities Other housing and utilities Health, education, and cultural facilities Science, administration, military, and special projects Other |   | Private urban and rural housing              |
| Capital repairs  |   | Capital repairs                              |
|  |   |  |

This breakdown of planned capital investments is discussed below by sector.

# A. Industry.

Heavy industry under state ownership includes all the branches and ministries of heavy industry for metallurgy; fuels (oil, coal, gas, and others); electric power; chemicals; machine building and metalworking; timber, paper, and wood processing; and industrial construction materials.\* Light and local industry under state ownership includes all branches of industry for manufactured consumer goods, food products, meat and dairy products, fish, textiles, and local industry. In the nonstate sector of industry are found producer cooperatives and the handicraft industries which produce consumer goods and services. Reflecting the importance of heavy industry in the Soviet scale of priorities, investments in this branch during the postwar years have comprised 88 to 90 percent of total industrial investments, light and local industry have represented 8 to 11 percent of the total, and producer cooperatives and handicraft industries have comprised 1 to 2 percent. Productive investments in industry as a whole have averaged about 45 percent of total capital investments in the postwar period.\*\* 15/ Although total fixed assets doubled from 1940 to 1956, fixed assets in industry and construction increased by 200 percent as a result of the emphasis upon industry. Assets in agriculture increased by 130 percent, although transport assets grew by only 69 percent and nonproductive assets (mostly housing) by 61 percent. 16/

# B. Agriculture.

Most state investments in agriculture are carried out by the Ministry of Agriculture, which has under its jurisdiction MTS's; sovkhozes; administrations for forestry, cotton growing, animal husbandry, shelter belting, and planting; repair enterprises; motor pools; water resources installations; and several other administrations which have relatively insignificant investment expenditures. Apart from those directed by the Ministry of Agriculture, state agricultural investments include general agricultural projects such as large irrigation schemes and investments of the Ministry of Grain Products (previously part of state procurements). The latter investments have been included in agricultural investment statistics since 1956.

Nonstate investments in agriculture represent an important part of total agricultural investments. Kolkhoz investments immediately after

<sup>\*</sup> Investments in the construction industry are occasionally included specifically in the investment and assets data for heavy industry.

\*\* These and subsequent investment statistics exclude investments in private housing and capital repairs unless otherwise stated.

World War II and during the last years of the Fifth Five Year Plan were larger than state agricultural investments. Under the directives of the Sixth Five Year Plan it was anticipated that kolkhoz investments would be greater than investments in the state sector. The transfer of purchases of agricultural machinery to the nonstate sector may increase the kolkhoz share of agricultural investment to three-fourths of the total. Private agriculture is made up of private plots and a fair number of independent farmers. Investments in this sphere, consisting mainly of tools, implements, and farm sheds, are not calculated, because of lack of data. These investments are assumed to be relatively small.

Productive investments in agriculture have comprised an increasing share of total investments during the postwar period -- from 15 percent in the Fourth Five Year Plan to 18 percent in the Fifth Five Year Plan and 21 percent in 1956. 17/

#### C. Transport and Communications.

There are no nonstate investments in transport and communications. Included in the state sector are the Ministries of Railroads, the Merchant Fleet, and Communications. Motor transport and highways and the river fleet are included as branches of transport under republic governments, and the civil air fleet is an administration attached to the Council of Ministers. Investments in railroads have comprised to 80 percent of total transport and communications investments in postwar years; the other branches sharing the balance. Productive investments in this sector as a share of total investments have declined steadily throughout the postwar period, from about 13 percent in the Fourth Five Year Plan to 9 percent in the Fifth Five Year Plan and 8 percent in 1956. 18/

#### D. Internal Trade.

Investments in internal trade are very small, estimated in the past to have been 2 to 3 percent of total investments. In the state sector the Ministry of Trade invests mainly in urban trade outlets, storage facilities, and public eating places. The Ministry of Trade handles about 60 percent of total retail trade (including workers' supply departments). In the nonstate sector the kolkhoz market accounts for about 10 percent of total trade, but investments are very small -- several hundred million rubles a year -- consisting mainly of stalls and a few simple structures. Consumer cooperatives handle rural trade and comprise about 30 percent of total trade. 19/

# E. Other Investments.

A dual explanation of the items included in the sector of other investments is necessary. The items listed under this sector and

under internal trade in the tabulation\* are all nonproductive investments in the economy and represent 25 to 30 percent of the total.\*\* Most of the investments in the former category, however, do not comprise a separate sector but are an integral part of the investments of other sectors -- industry, agriculture, transport, and trade. For example, state centralized investments in industry are planned to be 130 billion rubles for 1958. Of this total, it is estimated that 25 billion to 30 billion rubles are for the construction of houses, clinics, and schools and for other social-cultural facilities, scientific research facilities, and other nonproductive investments. Of the total planned investments in ferrous metallurgy in 1958 of 12 billion rubles, about 2.5 billion rubles are for housing, schools, and other nonproductive measures. In Soviet statistical practice, unless otherwise stated, a sector, branch, and/or ministry breakdown of total investment includes the nonproductive investments of that sector or branch with the productive. For example, planned financing of centralized investments for 1958 was announced as follows 20/:

| Sector                             | Billion Rubles | Percent<br>of Total Investment |
|------------------------------------|----------------|--------------------------------|
| Industry<br>Agriculture            | 130 · 30       | 64<br>15                       |
| Transport and Communications Trade | 20             | 10                             |
| Residual                           | 23             | 11                             |
| Total                              | 204            | 100                            |

Included in the residual, which represents about 10 percent of the total, are administrative investments, municipal housing and utilities, and investments of the ministries of higher education and of health; of the Academy of Science; of the ministries of culture, defense, and geology; of special projects; and of others, some of which are not known. Municipal housing refers to that housing built and owned by municipalities and comprises less than 10 percent of total state housing investments. Utilities refers to investment expenditures of municipalities on heating plants, electricity, sewerage, water supply facilities, and the like. Administrative investments include buildings and office equipment of such organizations as Gosplan, Gosbank, the Ministry of Justice, and the Ministry of Finance.

<sup>\*</sup> P. 9, above.

<sup>\*\*</sup> If private housing were included, the share of nonproductive investment would be about 5 percent greater. As stated above, private housing investments have not been included in data presented.

Social-cultural investments in the sector breakdown include only investments of the ministries themselves -- those of higher education, health, and culture -- and of the Academy of Science and a few special committees such as the Committee on Sports. For example, the construction of the University of Moscow, which is under the Ministry of Higher Education, was financed under this category of other investments. If, on the other hand, the Ministry of Medium Machine Building constructs schools or nurseries or clinics for employees and their families, these investments are included in heavy industry. Military investments include construction of airfields, military ports, harbors, barracks, and other types of installations and bases. Special projects would include such things as the Stalin Great Projects and probably also investments in certain strategic projects.

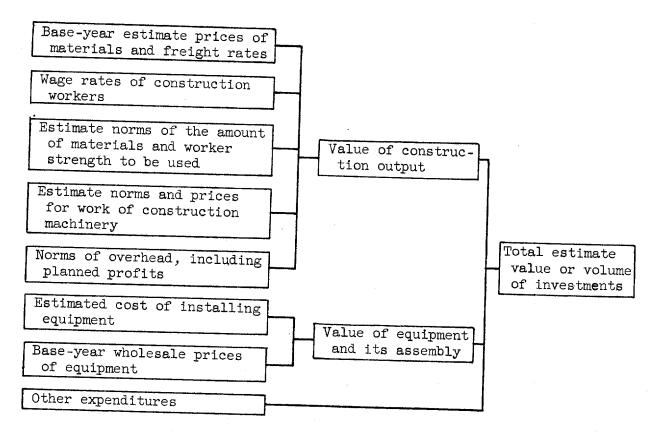
The only significant nonstate investment in the category of other investments is private housing construction, which includes almost all rural housing built and more than 25 percent of the urban construction. 21/

# IV. Financing Capital Investments.

# A. Volume Versus Financing. 22/

Data on investment planning and plan fulfillment for periods of 1 year or more for the total economy, for sectors, and for branches and/or ministries are calculated in terms of volume, which essentially refers to the amount of investments in fixed base-year prices and designs. This amount is called the estimate value of investments (smetnaya stoimost').\* The calculation of the estimate value of a project is shown in the following diagram:

<sup>\*</sup> For example, during the period 1951-55 the volume of investments was calculated by using wholesale prices of 1 July 1950 for all machinery, equipment, construction materials, and freight and power rates and by using construction-output norms established as of 1 July 1950. These norms refer to the amount and cost of the labor, materials, and other items making up 1 unit of construction output (for example, 1 cubic meter of building or 1 kilometer of railroad line). The plan for the period 1956-60 and investment plans for 1956-58 have been calculated in prices of 1 July 1955 with construction-output norms established as of 1 January 1956. Base-year estimate prices for calculating the volume of investments in other periods were as follows: for the Second Five Year Plan (1933-37), 1933 prices and norms; for the Third Five Year Plan (1938-42), 1936 prices and norms; for the Fourth Five Year Plan (1946-50), 1945 prices and adjusted 1936-38 norms.



Using these fixed values makes it possible to measure the physical growth of investments without the effects of price changes, over-expenditures for wages, and other factors.

The financial plan for capital investments, as revealed in the state budget, in assets data, and in investment cost data, although based on the planned volume of investments, can be more or less than the volume, chiefly because the financial requirements are calculated in terms of current-year wholesale prices, not base-year prices. Certain additional adjustments, described in B, below, cause a divergence between volume and financing.\*

<sup>\*</sup> For example, on 1 January 1952 there was a general lowering of whole-sale prices of machinery, construction materials, and freight and power rates. This had the effect of lowering the total cost of the investment program by 6 to 8 percent. The volume of investments in 1952 and thereafter in the Fifth Five Year Plan continued to be calculated in 1950 wholesale prices, and all volume statistics were released in these prices; however, the financial requirements for this volume were less by 6 to 8 percent. On 1 July 1955 there was another lowering of wholesale prices, which lowered the financial requirements for the second half of 1955, but the volume was still calculated in 1950 prices.

# B. Sources of Financing. 23/

The most basic difference between investment financing in the US and in the USSR is the fact that US investments are financed by borrowing and by plowing back profits whereas planned state investments in the USSR are financed by nonreturnable budget grants. State enterprises, with minor exceptions, do not borrow to finance investments. Investment funds for the development of heavy industry have been obtained in huge amounts in a small number of years, without foreign borrowing, by severely taxing all elements of the economy and by funneling these tax receipts into heavy industry investments through the state budget.

Soviet practice divides investments into four general groups according to the financial sources peculiar to each group.\* These groups are as follows:

- 1. Centralized state capital investments, comprising more than 75 percent of total capital investments. This is the only part of capital investments for which materials, labor, and financial resources are centrally planned. This is the financial plan that is presented in the budget each year, the major source of financing being the budget. The centralized state investment plan includes almost all of the investments of heavy industry, transport, state agriculture, administration, science, and other state activities as well as the bulk of housing and light industry investments.
- 2. Decentralized state and cooperative investments, comprising about 10 percent of total investments. These investments are planned locally insofar as material and financial resources are concerned, although guidelines and general targets for these investments are established by Gosplan. A major purpose of this second group is to stimulate the growth of consumer industries and services with the use of local resources and talents. Included are the investments of cooperatives, and a large part of the total investments in trade, local industry, and social-cultural facilities. Sources of financing are varied, long-term bank loans and retained profits being two major sources.
- 3. Kolkhoz investments, comprising about 10 percent of capital investments and financed either by bank loans or by income received from sale of agricultural products.
- 4. Private housing, comprising about 5 percent of total investments. This group should also contain private farm investments but, as previously stated, these investments are not calculated. Private housing construction funds come from saving and from bank loans.

A breakdown of the sources of financing into the four categories described above is shown in Table 1.\*\* The percentages represent an

<sup>\*</sup> A fifth group -- capital repairs -- is not included in this discussion of sources of financing.

<sup>\*\*</sup> Table 1 follows on p. 16.

Percent of Ruble Investment of Each Category

estimate of the approximate share of the total for each category financed by the various sources in 1956.

Table 1
Sources of Financing the Volume of Soviet Capital Investments, by Category
1956

|   |                | Category         |                    | :          |
|---|----------------|------------------|--------------------|------------|
| Source<br>of Financing                              | Centralized a/ | Decentralized b/ | Kolkhoz <u>c</u> / | Private c/ |
| Budget  | 74             | 10 <u>a</u> /    | <u>e</u> /         | <u>e</u> / |
| Amortization  | 14             | 5                | <u>e</u> /         | <u>e</u> / |
| Profits, above-<br>plan profits,<br>retained income | 9              | 25               | 77                 | <u>e</u> / |
| Private savings                                     | <u>e</u> /     | <u>e</u> /       | <u>e</u> /         | 80         |
| Loans   | <u>e</u> /     | 25               | 23                 | 20         |
| Savings from price reductions                       | <u>f</u> /     | <u>f</u> /       | <u>f</u> /         | <u>e</u> / |
| Mobilization of internal re-<br>sources             | . 3            | <u>f</u> /       | <u>f</u> /         | <u>e</u> / |
| Other   | <u>f</u> /     | 35               | <u>f</u> /         | <u>e</u> / |
| Total   | 100            | 100              | 100                | 100        |
| Percent of total investments                        | L<br>77        | 9                | 10                 | <b>4</b>   |

a. State investments.

b. See 2, p. 15, above.

c. Nonstate investments.

d. This source of financing is available by decree only.

e. This source of financing is not available to this category.

f. This source of financing is available to this category but was not used in 1956.

As may be seen, centralized investments are almost the same as state investments indicated in III, above, except that the state carries out some decentralized investments. The shares of financing from each source in a given group may change over time. For example, in 1946, loans provided about 6 percent of kolkhoz investments whereas their share in 1956 was almost 25 percent. 24/ Also, one of the four groups may grow more rapidly in one year than another depending on economic policy. In recent years, for example, decentralized and other nonstate investments have grown more rapidly than state centralized investments. Thus, whereas the share of the latter was about 85 percent of total capital investments in 1950, it is now more than 75 percent. 25/

# 1. State Centralized Capital Investments.

State centralized capital investments are mainly financed by the budget, which assures that the financial resources will be available regardless of the success of the fulfillment of other financial plans. From the enterprises themselves, retained profits earmarked for investments and amortization deductions are the chief sources of investment funds.

As a source of investment funds, retained profits provide about 10 percent of the total centralized plan. To provide a greater freedom of redistribution, the general policy of the state has been to allow only small retained profits for investments, to levy high profits taxes, and to redistribute the funds through the budget.

Amortization deductions provide 13 to 14 percent of centralized investment funds. Amortization rates are based on the original cost of an asset and its life expectancy. For example, if the original cost of an asset is 1,000 rubles and it is expected to last 20 years, its amortization rate is 5 percent and the annual amortization deduction of 50 rubles is treated as an operating cost of the enterprise. Amortization deductions are kept in separate bank accounts which cannot be used for operations. The funds are accumulated for new investments and capital repairs in a ratio of about 40 percent to 60 percent, respectively. That part earmarked for new investments is at the disposal of the government for redistribution among other plants if it is not used by the plant which set the money aside. The part for repairs must stay at the plant to be used for its own repairs. 26/

Amortization rates and the share of amortization as a source for financing new investments will probably rise in the near future. This increase will reflect, on the one hand, the impact of a revaluation of assets, scheduled for the fall of 1958. On the other hand, the growing awareness of the effect of technological obsolescence upon costs will lead to earlier retirements and higher amortization rates. In some

industries, amortization rates have been so low that assets were physically worn out and discarded before they were completely amortized. Losses in these instances amounted to more than 6 billion rubles in 1954. 27/

Another source of financing which has become increasingly important in the last few years is the Reserve Fund of the Council of Ministers. This is a fund of financial and material resources "set aside each year in the union budget and in the union-republic budgets to finance auxiliary capital investments and other measures which could not be foreseen in the established plan." 28/ Thus these funds are not included in the original plans for volume or financing but are included in the fulfillment of the volume and in the actual amount of financing as a budgetary source. No specific figures have been announced for funds of the Council of Ministers as a source of investment financing, but they are estimated to have been 6 billion to 10 billion rubles a year for the years 1956 and 1957.

Several of the remaining sources of financing include funds which are not deposited in the banks for investments by the government but which are nevertheless part of the financial resources required for a given volume of investments.

Savings from price reductions represent the difference between base-year and current-year wholesale prices for machinery, equipment, construction materials, and freight and power tariffs. As stated above, the financial requirements are less than the volume if wholesale prices and tariffs of the base year are higher than in the current year. Thus this entry really represents a bookkeeping adjustment to reconcile the volume of investment with its financing. During the Fifth Five Year Plan, for instance, the volume of investments was calculated in 1950 prices, but in 1952 and subsequent years the financial requirements were calculated in 1952 wholesale prices. There were other minor wholesale price reductions, such as that of 1952, on selected machinery in years between major reductions which were probably also included in this item, although Soviet writers have never been clear on this point. The effect of the July 1955 wholesale price reduction on the share of each source in financing investments is shown in Table 2.\*

The reason that there were no savings from price reductions in 1956 is that the 1950 price base for computing volume had been dropped at the end of 1955 and a new price base introduced for the next Five Year Plan period. The new price base contained the wholesale prices of 1 July 1955, which were the same as current wholesale prices

<sup>\*</sup> Table 2 follows on p. 19.

Table 2
Sources of Financing the Volume of Soviet State Centralized Investments
1955 Plan and 1956 Plan

|  | Percent of Total Ruble Investment                     |   |
|--|---|---|
| Source   | 1955 Plan<br>(Wholesale<br>Prices of 1950) <u>a</u> / | 1956 Plan<br>(Wholesale<br>Prices of 1955) <u>b</u> / |
| Budget   | 64  | 74  |
| Profits retained for invest-<br>ments                        | 7   | 9   |
| Amortization deductions                                      | <b>1</b> 3  | 14  |
| Savings from price reductions All other, including mobiliza- | 15  |   |
| tion of internal resources                                   | 1   | 3   |
| Total  | 100   | 100   |
| a. 29/   | ······································                |   |

a.  $\frac{29}{30}$ 

in 1956. There have been no major wholesale price reductions in the years 1956-58, so that the volume and financing figures are very close.

Mobilization of internal resources refers to any money the contractor is scheduled to collect for work already done and to the value of above-norm supplies of construction materials or equipment on hand.

Among other sources, as indicated in Table 1, are the value of materials to be received at no cost, amortization deductions on the fixed capital of the construction project, sums to be received from sale of used up or unwanted fixed assets, income from certain byproducts produced during the process of construction, and the amount of planned profits and planned cost reductions from increased efficiency of construction-installation work done by the economic method.\* 31/ Some writers treat other sources as mobilization of internal resources.

\* The sources of financing do not include the planned profits and planned cost reductions of work done by the contract method (see Appendix A for definitions of the contract and economic methods), by which 80 percent of construction work in the country is performed. Profits and amounts saved from cost reductions are included in the contract price paid by the client to the contract

[footnote continued on p. 20]

The above sources -- savings from price reductions, mobilization of internal resources, and others -- tend to reduce the financial outlays made by the government in a given year to obtain a given volume of investments. There are several factors which tend to increase the financial outlays necessary to obtain a given volume of investments. The first is the inclusion in the financial requirements of auxiliary expenditures, such as increased wages, which were not in the base-year price estimates by which the planned volume was calculated. Payments for prizes and bonuses are also included in financial requirements but excluded from volume. A second factor which will cause an excess of financing over volume is the frequent inclusion of funds for increasing supplies of working capital\* (materials, supplies, and equipment) in financing. The volume of investments does not include these until they are used.\*\*

In some years the factors tending to reduce the financial requirements by the government are greater than the factors tending to increase the financial requirements so that the financial requirements are less than the volume. In the 1958 plan, however, the financial requirements are greater than the volume (see Table 3\*\*\*). This plan calls for a volume of planned state centralized capital investments of 199 billion rubles. The total financial requirements for this program were announced at 204 billion rubles.

# 2. Decentralized Investments.\*\*\*

Decentralized investments (detsentralizovannyye kapital'nyye vlozheniye) are not included in state planned capital investments, because, as the name implies, the planning of the material and financial

construction organization and thus are part of the necessary financing. These funds are retained by the contract organizations for premiums, increasing working capital, and other uses.

\* This practice is sometimes called immobilization of internal resources.

\*\* For example, a cement plant is under construction in 1957. The client organization pays the builder 600,000 rubles for work fulfilled in 1957. The client advances the builder 500,000 rubles to buy materials for later use (in 1958). The client buys equipment valued at 200,000 rubles and stores it in a warehouse for later installation (in 1958). The builder removes equipment valued at 250,000 rubles, and paid for in 1956, from the warehouse and installs it on the job. The volume of investments is derived as follows: 600,000 + 250,000 = 850,000 rubles. The financing is derived as follows: 600,000 + 500,000 + 200,000 = 1,300,000 rubles.

\*\*\* Table 3 follows on p. 21.

\*\*\*\* Decentralized investments as a separate category of investments first occurred in 1937. During the war,  $\sqrt{f}$  ootnote continued on p. 217

Table 3

Soviet State Centralized Investments Planned for 1958 by Volume and Financing a/

| Investment                        | Volume<br>(Billion 1 July<br>1955 Rubles) | Financing<br>(Billion Rubles) | Percent<br>of Total Ruble<br>Investment |
|-----------------------------------|---|-------------------------------|---|
| Budget Profits Amortization Other |   | 143<br>29<br>28<br>4          | 70<br>14<br>14<br>2                     |
| Total                             | 199                                       | 204                           | 100                                     |
| a. 32/                            |   |                               |   |

a. 32/

resources for these investments occurs locally. The sources of financing are as varied as their uses. Most of the investments are consumeroriented, as the partial list presented below indicates. Since 1954 the financial sources and uses of decentralized investments have broadened significantly and continually, but surprisingly little information has appeared on the subject. No breakdown of these investments by sector or use has ever been published. In general, the increased role of decentralized investments is part of the attempt to move decision making from the center to the locality. In the investment field, this attempt has occurred mainly in consumer areas. As can be seen from the partial listing below, direct budget allocations are not made for financing these investments except in extraordinary cases. On the other hand, bank loans are used extensively, although they are not used for investments in the centralized state plan. Sources of financing include, besides those

decentralized investments were quite large. In 1949 a decision was made to include them in the central plan, and the category of decentralized investments was abolished. But in 1951 they were again separated from the central plan, at which time certain aspects were eliminated, the financial sources were reduced, and the sources and uses or purposes were more closely related than previously. 33/

Two other terms are used to describe decentralized investments -- above-the-plan (sverkh plan) and outside-the-plan (vne plan). The term decentralized refers to the sources of financing, the terms above-the-plan and outside-the-plan refer to the fact that these investments are not in the state centralized capital investment plan.

enumerated in the following tabulation, which are all specialized sources established by the government, the same types of sources described above for centralized investments -- that is, mobilization of internal resources, savings from price reductions, and other.

#### Funds for Soviet Decentralized Investments

#### Source

#### Use

# Enterprise Fund

An amount, ranging from 1 to 6 percent of planned profits of enterprise (depending on branch of industry or sector of economy), set aside for investments (about 50 percent) and bonuses and other measures (about 50 percent). Deductions to this fund from profits increased as of 1954. Formerly called Directors Fund. Increased between 1954 and 1957 from about 1 billion to 2.4 billion rubles, or by about 1.5 billion rubles. 34/

Modernization
Introduction of new techniques

Housing, utility construction
Housing repair
Construction of cultural
facilities for employees

# Above-Plan Profits

An amount, ranging from 20 to 50 percent of above-plan profits after payment of bonuses (depending on branch of industry or sector of economy) to also be placed in the enterprise fund. Deductions to this fund from above-plan profits also increased as of 1954. 35/

Same as above. Also for purchase of typewriters, accounting machines, and fire-prevention and other special equipment.

# Certain Profits of Local Industry

Up to 60 percent of profits of local industry are set aside for investments. Although on the books before, this source is used increasingly in the last few years. In the 1957 plan, total profits of district and province industry were planned at 7.4 billion rubles. Of this amount, 3 billion rubles went to the budget as taxes, with 4.4 billion rubles to be retained for decentralized investments. 36/

Further capital investment in local industry, above that in state plan. Also for housing, municipal, and cultural facilities in the locality.

# Funds for Soviet Decentralized Investments (Continued)

| . (Continued)   |  |
|---|--|
| Source  | Use  |
| Modernization Loans   |  |
| A new source and use as of 1954, whereby it was decreed that 1- to 3-year loans obtainable at Gosbank in amounts up to 1 million rubles at enterprise director's order and 2 million rubles and more on higher authority. 37/ | Modernization Introduction of new tech- niques   |
| Long-Term Loans (Other Than Modernization)  |  |
| Long-term borrowing by municipal enter-<br>prises   | Construction of public service facilities such as laundries and water lines                              |
| Long-term borrowing by local industry   | Construction of facili-<br>ties for production of<br>consumer goods, fuels,<br>and construction material |
| Long-term borrowing by sovkhozes 38/  | Construction of enterprise to produce building materials and for several other purposes                  |
| Above-Plan Revenues of Republic Councils of Ministers   |  |
| Beginning in 1955, union-republic councils of ministers were given the right to use above-plan revenues of republic budgets for investments. Total amount in the first year (1955) was 1.5 billion rubles. 39/                | Housing and communal con-<br>struction uses increasing<br>gradually                                      |
| Other Miscellaneous Sources 40/   |  |
| Beginning in 1957, union-republic councils of ministers were permitted to establish deductions from receipts of vegetable and potato trading organizations for decentralized investments of Ministry of Trade                 | Construction of warehouses and food-processing plant   |

tralized investments of Ministry of Trade.

# Funds for Soviet Decentralized Investments (Continued)

| Source   | Use  |
|--|--|
| Rental receipts and part of tax kolkhoz market                                   | receipts of Construction of kolkhoz market premises  |
| Premiums from All-Union socialition  | st competi- Housing and social-cultural<br>and other miscellaneous<br>uses   |
| Profits of enterprises from sal sumer goods on the side                          | e of con- Same   |
| Local revenues of station maste  | rs Same  |
| Fund of state farms of strength management and extending the e state farms       |  |
| Special revenues of MTS's  | S <b>a</b> me  |
| Deductions from profits of subs<br>farms belonging to nonagricult<br>enterprises | <u> </u>   |
| Special budget allocations and sources   | own re- Purchase of small-value instruments, office equip- ment, appliances for ex- isting housing facilities, urban telephone and radio equipment, and the like |
| · · · · · · · · · · · · · · · · · · ·  |  |

All investments of cooperatives, both producer and consumer, are decentralized investments. These organizations use a certain percentage of planned revenues, a certain percentage of profits, and also bank loans and amortization deductions as sources for financing investments. 41/

### 3. Kolkhoz Investments.

Kolkhozes deduct 18 to 20 percent from their money incomes which are put into a fund in the Agricultural Bank called the "indivisible fund." This fund is the major source of investment funds of kolkhozes. In a bad crop year, if incomes are low, investments are also low Another source of financing for kolkhoz investments is bank borrowing, which currently comprises about 25 percent of kolkhoz money investments. There are two major types of investments which require no money outlays --kolkhoz labor used in construction and the value of increases in numbers of productive and working livestock. The former is given an accounting value equivalent to the average wage paid construction workers in state agriculture. The latter is given a special price for investment purposes, but the value of these increases is generally not included in kolkhoz investments at the present time.

Although recently published statistical handbooks have presented series on the volume (or base-year price) of investments by kolkhozes, the technique employed in calculating these series is not known. It is difficult to imagine how the tremendous variety of investment expenditures -- including such items as expenditures for planting orchards and other perennial crops, purchase of construction materials at retail prices, and purchase of machinery and equipment at a variety of prices ranging from wholesale to retail -- were converted to a common base.

# 4. Private Housing.

The fourth group of investments consists of private housing construction, both urban and rural. Sources of financing are private savings and bank loans. There is also significant labor involved which is usually done by the builder-owner, although in recent years construction labor has been hired for private building. Soviet investment statistics do not include private housing construction, although estimates should be made for purposes of comparison with US investment statistics.

#### APPENDIX A

# TERMS FREQUENTLY USED IN SOVIET CAPITAL INVESTMENT PLANNING AND FINANCING\*

# Terms Used in Construction Pricing 42/

Estimate Value (smetnaya stoimost').\*\*

Used in calculating the volume of construction.

Estimate Cost (smetnaya sebestoimost').

Same as estimate value except that estimate cost excludes profits of construction organizations -- accumulations -- which are currently planned at 2 1/2 percent of the total cost of construction.

Plan Value (planovaya stoimost')

Used in calculating the financing of construction. The major difference between estimate value and plan value is that the latter takes into account changes in wholesale prices after the base year as well as changes in working capital.

Plan Cost (planovaya sebestoimost').

Same as plan value but lower by the amount of profits of construction organizations and by the directives for lowering the cost of construction by increased efficiency.

Actual (or Factual) Cost (fakticheskaya sebestoimost')

Factual cost is the actual ruble outlay for construction, the so-called report cost (otchetnoy).

<sup>\*</sup> Soviet writers seldom use these terms precisely. Their use of the word stoimost' may refer to any one of the terms in Appendix A.

\*\* See p. 13, above.

# Methods of Carrying Out Construction Work 43/

Contract Method of Construction (podryadnyy sposob).

Under this method, construction work is done by permanently functioning, special construction organizations for clients on the basis of contracts -- the same method generally used in US construction. The contract price includes an estimate of direct cost plus over-head plus profits. More than 80 percent of construction activity is currently carried out by the contract method.

Economic Method of Construction (khozyaystvennyy sposob).

Under this method, construction work is done directly by an operating enterprise, using its own resources. There is no outside construction organization, no contract. There is no profit involved, and the state does not provide funds for working capital. An example might be the use of plant employees to build houses using materials and equipment purchased by the operating plant. This term is equivalent to the US term force account construction.

# Terms Used in Valuing Fixed Assets 44/

Fixed Assets According to Original Value (osnovnykh fondov po pervonachalnoy stoimost').

Original value refers to the value of an asset at the moment it begins to operate. It is the actual cost of its original manufacture or acquisition. For domstically produced machinery, original value refers to the industrial wholesale price; imported equipment is valued at the so-called "accounting price," which is based on the current foreign exchange rate. For construction, original value refers to the contract price paid to the builder by the client for work done by contract and to the actual outlays for work done by the economic method.

Fixed Assets According to Reproduction Value (osnovnykh fondov po vosstanovitel'noy stoimost').

Reproduction value refers to the cost of reproducing an asset at a given moment. It is the actual manufacturing or acquisition cost at current prices.

Full Value (polnaya stoimost') and Residual Value (ostatochnaya stoimost').

Used in connection with the above terms. Full original value and full reproduction value refer to the fact that these assets values have not been adjusted for depreciation. Residual original value and residual reproduction value refer to depreciated values -- that is, original full value - amortization allowances = original residual value.

# Other Terms 45/

Capital Works (kapital'nykh raboty).

Capital works includes construction, equipment requiring installation, installation of equipment, bureau work, and instruments and supplies. It excludes equipment not requiring installation.

Capital Investments According to the State Plan (kapital'nykh vlozheniy po gosudarstvennomy planu).

This term includes centralized investments only.

vestments in the National Economy (obshchey ob"em kapital'nykh vlozheniy v narodnoye khozyaystvo).

Total Volume of Capital In- This term includes both centralized and decentralized investments but in practice excludes the investments by kolkhozes unless otherwise stated.

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